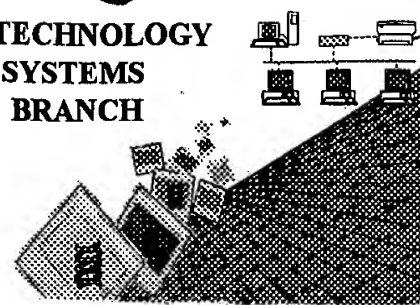


BIOTECHNOLOGY
SYSTEMS
BRANCH



1634
#19

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/517,466C
Source: 1600
Date Processed by STIC: 4/18/2002

RECEIVED

MAY 01 2002

TECH CENTER 1600/2900

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 3.1 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 09/517,466C

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
 Wrapped Aminos
The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length
The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
 Numbering
The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII
The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 ✓ Variable Length
Sequence(s) 15-? contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
 "bug"
A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
 (OLD RULES)
Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
 (NEW RULES)
Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 9 Use of n's or Xaa's
 (NEW RULES)
Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa; and which residue n or Xaa represents.
- 10 Invalid <213>
 Response
Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220>
Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
 "bug"
Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n
n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.

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1634

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/517,466C

DATE: 04/24/2002

TIME: 07:44:39

Input Set : A:\09424680003seqlist ascii

Output Set: N:\CRF3\04242002\I517466C.raw

Does Not Comply
Corrected Diskette Needed

ppr 4-6

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```

5 <110> APPLICANT: Hartley, James L.
7     Brasch, Michael A.
9     Temple, Gary F.
11    Cheo, David
15 <120> TITLE OF INVENTION: Compositions and Methods for Use in Recombinational
16    Cloning of Nucleic Acids
20 <130> FILE REFERENCE: 0942.4680003
24 <140> CURRENT APPLICATION NUMBER: 09/517,466C
26 <141> CURRENT FILING DATE: 2000-03-02
30 <150> PRIOR APPLICATION NUMBER: US 60/122,389
32 <151> PRIOR FILING DATE: 1999-03-02
36 <150> PRIOR APPLICATION NUMBER: US 60/126,049
38 <151> PRIOR FILING DATE: 1999-03-23
42 <150> PRIOR APPLICATION NUMBER: US 60/136,744
44 <151> PRIOR FILING DATE: 1999-05-28
48 <160> NUMBER OF SEQ ID NOS: 285
52 <170> SOFTWARE: PatentIn version 3.1
56 <210> SEQ ID NO: 1
58 <211> LENGTH: 25
60 <212> TYPE: DNA
62 <213> ORGANISM: Artificial Sequence
66 <220> FEATURE:
68 <223> OTHER INFORMATION: attB1 site
70 <400> SEQUENCE: 1
71 acaagtttgt acaaaaaagc aggct
74 <210> SEQ ID NO: 2
76 <211> LENGTH: 25
78 <212> TYPE: DNA
80 <213> ORGANISM: Artificial Sequence
84 <220> FEATURE:
86 <223> OTHER INFORMATION: attB2 site
88 <400> SEQUENCE: 2
89 acccagcttt cttgtacaaa gtggt
92 <210> SEQ ID NO: 3
94 <211> LENGTH: 233
96 <212> TYPE: DNA
98 <213> ORGANISM: Artificial Sequence
102 <220> FEATURE:
104 <223> OTHER INFORMATION: attP1 site
106 <400> SEQUENCE: 3
107 tacaggtcac taataccatc taagtagttg attcatagtg actggatatg ttgtgtttta
109 cagtattatg tagtctgttt ttatgcaaa atctaattta atatattgat atttatatca
111 ttttacgttt ctcgttcagc ttttttgtac aaagttggca ttataaaaaa gcattgctca

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25

25

60

120

180

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/517,466C

DATE: 04/24/2002

TIME: 07:44:39

Input Set : A:\09424680003seqlist ascii

Output Set: N:\CRF3\04242002\I517466C.raw

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113 tcaatttggt gcaacgaaca ggtcactatc agtcaaaata aaatcattat ttg      233
116 <210> SEQ ID NO: 4
118 <211> LENGTH: 233
120 <212> TYPE: DNA
122 <213> ORGANISM: Artificial Sequence
126 <220> FEATURE:
128 <223> OTHER INFORMATION: attP2
130 <400> SEQUENCE: 4
131 caaataatga ttttattttg actgatagtg acctgttcgt tgcaacaaat tgataagcaa      60
133 tgcttttctta taatgccaac tttgtacaag aaagctgaac gagaaacgta aaatgatata      120
135 aatatcaata tattaaatta gattttgcat aaaaaacaga ctacataata ctgtaaaaca      180
137 caacatatcc agtcactatg aatcaactac ttagatggta ttagtgacct gta          233
140 <210> SEQ ID NO: 5
142 <211> LENGTH: 125
144 <212> TYPE: DNA
146 <213> ORGANISM: Artificial Sequence
150 <220> FEATURE:
152 <223> OTHER INFORMATION: attL1
154 <400> SEQUENCE: 5
155 acaagtttgt acaaaaaagc tgaacgagaa acgtaaaatg atataaatat caatatatta      60
157 aattagatgt tgcataaaaa acagactaca taatactgta aaacacaaca tatccagtca      120
159 ctatg                                          125
162 <210> SEQ ID NO: 6
164 <211> LENGTH: 135
166 <212> TYPE: DNA
168 <213> ORGANISM: Artificial Sequence
172 <220> FEATURE:
174 <223> OTHER INFORMATION: attL2
176 <400> SEQUENCE: 6
177 gcaggtcgac catagtgact ggatatgttg tgttttacag tattatgtag tctgtttttt      60
179 atgcaaaatc taatttaata tattgatatt tatatcattt tacgtttctc gttcagcttt      120
181 cttgtacaaa gtggt                                135
184 <210> SEQ ID NO: 7
186 <211> LENGTH: 100
188 <212> TYPE: DNA
190 <213> ORGANISM: Artificial Sequence
194 <220> FEATURE:
196 <223> OTHER INFORMATION: attR1
198 <400> SEQUENCE: 7
199 caaataatga ttttattttg actgatagtg acctgttcgt tgcaacaaat tgataagcaa      60
201 tgctttttta taatgccaac tttgtacaaa aaagcaggct                                100
204 <210> SEQ ID NO: 8
206 <211> LENGTH: 100
208 <212> TYPE: DNA
210 <213> ORGANISM: Artificial Sequence
214 <220> FEATURE:
216 <223> OTHER INFORMATION: attR2
218 <400> SEQUENCE: 8
219 caaataatga ttttattttg actgatagtg acctgttcgt tgcaacaaat tgataagcaa      60

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/517,466C

DATE: 04/24/2002

TIME: 07:44:39

Input Set : A:\09424680003seqlist ascii

Output Set: N:\CRF3\04242002\I517466C.raw

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221 tgcttttctta taatgccaac tttgtacaag aaagctgggt      100
224 <210> SEQ ID NO: 9
226 <211> LENGTH: 15
228 <212> TYPE: DNA
230 <213> ORGANISM: Artificial Sequence
234 <220> FEATURE:
236 <223> OTHER INFORMATION: 15 bp core region of attB, attP, attL and attR
238 <400> SEQUENCE: 9
239 gcttttttat actaa      15
242 <210> SEQ ID NO: 10
244 <211> LENGTH: 30
246 <212> TYPE: DNA
248 <213> ORGANISM: Artificial Sequence
252 <220> FEATURE:
254 <223> OTHER INFORMATION: attL5
256 <400> SEQUENCE: 10
257 agcctgcttt attatactaa gttggcatta      30
260 <210> SEQ ID NO: 11
262 <211> LENGTH: 30
264 <212> TYPE: DNA
266 <213> ORGANISM: Artificial Sequence
270 <220> FEATURE:
272 <223> OTHER INFORMATION: attL6
274 <400> SEQUENCE: 11
275 agcctgcttt tttatattaa gttggcatta      30
278 <210> SEQ ID NO: 12
280 <211> LENGTH: 28
282 <212> TYPE: DNA
284 <213> ORGANISM: Artificial Sequence
288 <220> FEATURE:
290 <223> OTHER INFORMATION: attB1.6
292 <400> SEQUENCE: 12
293 ggggacaact ttgtacaaaa aagttggc      28
296 <210> SEQ ID NO: 13
298 <211> LENGTH: 29
300 <212> TYPE: DNA
302 <213> ORGANISM: Artificial Sequence
306 <220> FEATURE:
308 <223> OTHER INFORMATION: attB2.2
310 <400> SEQUENCE: 13
311 ggggacaact ttgtacaaga aagctgggt      29
314 <210> SEQ ID NO: 14
316 <211> LENGTH: 29
318 <212> TYPE: DNA
320 <213> ORGANISM: Artificial Sequence
324 <220> FEATURE:
326 <223> OTHER INFORMATION: attB2.10
328 <400> SEQUENCE: 14
329 ggggacaact ttgtacaaga aagttgggt      29

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/517,466C

DATE: 04/24/2002

TIME: 07:44:39

Input Set : A:\09424680003seqlist ascii

Output Set: N:\CRF3\04242002\I517466C.raw

332 <210> SEQ ID NO: 15
 334 <211> LENGTH: 25
 336 <212> TYPE: DNA
 338 <213> ORGANISM: Artificial Sequence
 342 <220> FEATURE:
 344 <223> OTHER INFORMATION: attB2(-1) Oligonucleotide Primer
 346 <220> FEATURE:
 348 <221> NAME/KEY: misc_feature
 350 <222> LOCATION: (25)..(25)
 352 <223> OTHER INFORMATION: n at the 3' end of the primer represents a target-specific
 353 sequence of any length
 357 <400> SEQUENCE: 15
 W--> 358 cccagctttc ttgtacaaag tggtn (see item 5 on Eva summary sheet)
 361 <210> SEQ ID NO: 16
 363 <211> LENGTH: 24
 365 <212> TYPE: DNA
 367 <213> ORGANISM: Artificial Sequence
 371 <220> FEATURE:
 373 <223> OTHER INFORMATION: attB2(-2) Oligonucleotide Primer
 375 <220> FEATURE:
 377 <221> NAME/KEY: misc_feature
 379 <222> LOCATION: (24)..(24)
 381 <223> OTHER INFORMATION: n at the 3' end of the primer represents a target-specific
 382 sequence of any length
 386 <400> SEQUENCE: 16
 W--> 387 ccagctttct tgtacaaagt ggttn same eva
 390 <210> SEQ ID NO: 17
 392 <211> LENGTH: 23
 394 <212> TYPE: DNA
 396 <213> ORGANISM: Artificial Sequence
 400 <220> FEATURE:
 402 <223> OTHER INFORMATION: attB2(-3) Oligonucleotide Primer
 404 <220> FEATURE:
 406 <221> NAME/KEY: misc_feature
 408 <222> LOCATION: (23)..(23)
 410 <223> OTHER INFORMATION: n at the 3' end of the primer represents a target-specific
 411 sequence of any length
 415 <400> SEQUENCE: 17
 W--> 416 cagctttctt gtacaaagt gtn
 419 <210> SEQ ID NO: 18
 421 <211> LENGTH: 22
 423 <212> TYPE: DNA
 425 <213> ORGANISM: Artificial Sequence
 429 <220> FEATURE:
 431 <223> OTHER INFORMATION: attB2(-4) Oligonucleotide Primer
 433 <220> FEATURE:
 435 <221> NAME/KEY: misc_feature
 437 <222> LOCATION: (22)..(22)
 439 <223> OTHER INFORMATION: n at the 3' end of the primer represents a target-specific

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/517,466C

DATE: 04/24/2002
TIME: 07:44:39

Input Set : A:\09424680003seqlist ascii
Output Set: N:\CRF3\04242002\I517466C.raw

440 sequence of any length
444 <400> SEQUENCE: 18
W--> 445 agcttttcttg tacaaagtgg tn *same* 22
448 <210> SEQ ID NO: 19
450 <211> LENGTH: 26
452 <212> TYPE: DNA
454 <213> ORGANISM: Artificial Sequence
458 <220> FEATURE:
460 <223> OTHER INFORMATION: attB1- and attB2-derived Oligonucleotide Primer
462 <220> FEATURE:
464 <221> NAME/KEY: misc_feature
466 <222> LOCATION: (26)..(26)
468 <223> OTHER INFORMATION: n at the 3' end of the primer represents a target-specific
469 sequence of any length
473 <400> SEQUENCE: 19
W--> 474 acaagtttgt acaaaaaagc aggctn *same* 26
477 <210> SEQ ID NO: 20
479 <211> LENGTH: 26
481 <212> TYPE: DNA
483 <213> ORGANISM: Artificial Sequence
487 <220> FEATURE:
489 <223> OTHER INFORMATION: attB1- and attB2-derived Oligonucleotide Primer
491 <220> FEATURE:
493 <221> NAME/KEY: misc_feature
495 <222> LOCATION: (26)..(26)
497 <223> OTHER INFORMATION: n at the 3' end of the primer represents a target-specific
498 sequence of any length
502 <400> SEQUENCE: 20
W--> 503 accactttgt acaagaaagc tgggtn *same* 26
506 <210> SEQ ID NO: 21
508 <211> LENGTH: 19
510 <212> TYPE: DNA
512 <213> ORGANISM: Artificial Sequence
516 <220> FEATURE:
518 <223> OTHER INFORMATION: attB1- and attB2-derived Oligonucleotide Primer
520 <220> FEATURE:
522 <221> NAME/KEY: misc_feature
524 <222> LOCATION: (19)..(19)
526 <223> OTHER INFORMATION: n at the 3' end of the primer represents a target-specific
527 sequence of any length
531 <400> SEQUENCE: 21
W--> 532 tgtacaaaaa agcaggctn *same* 19
535 <210> SEQ ID NO: 22
537 <211> LENGTH: 19
539 <212> TYPE: DNA
541 <213> ORGANISM: Artificial Sequence
545 <220> FEATURE:
547 <223> OTHER INFORMATION: attB1- and attB2-derived Oligonucleotide Primer
549 <220> FEATURE:

The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/517,466C

DATE: 04/24/2002
TIME: 07:44:40

Input Set : A:\09424680003seqlist ascii
Output Set: N:\CRF3\04242002\I517466C.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:15; N Pos. 25
Seq#:16; N Pos. 24
Seq#:17; N Pos. 23
Seq#:18; N Pos. 22
Seq#:19; N Pos. 26
Seq#:20; N Pos. 26
Seq#:21; N Pos. 19
Seq#:22; N Pos. 19
Seq#:23; N Pos. 16
Seq#:24; N Pos. 16
Seq#:25; N Pos. 13
Seq#:26; N Pos. 13
Seq#:27; N Pos. 12
Seq#:28; N Pos. 12
Seq#:29; N Pos. 11
Seq#:30; N Pos. 11
Seq#:33; N Pos. 4,5,6,7,8,9,10,11,12,22,23,24,25,26,27
Seq#:92; N Pos. 7,8,10,11,12,14,15
Seq#:109; N Pos. 20,21,22,23,24
Seq#:110; N Pos. 25,26,27,28,29
Seq#:112; N Pos. 20,21,22,23,24
Seq#:113; N Pos. 25,26,27,28,29
Seq#:114; N Pos. 13,14
Seq#:115; N Pos. 13
Seq#:132; N Pos. 6950
Seq#:160; N Pos. 1326
Seq#:162; N Pos. 1102,3080
Seq#:171; N Pos. 1,2,3,4,5,6
Seq#:172; N Pos. 1,2,3,4,5,6,7,8
Seq#:173; N Pos. 1,2,3,4,5,6,7
Seq#:179; N Pos. 2263
Seq#:244; N Pos. 1
Seq#:274; N Pos. 1
Seq#:279; N Pos. 1